

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**United States Patent Application**

Filing Date ..... filed herewith  
 Applicant(s) ..... Anil Vasudeo Virkar, Jan-Fong Jue, Kuan-Zong Fung  
 Attorney's Docket Number ..... 2034-0  
 Title ..... "ALKALI-METAL- $\beta$ - AND  $\beta''$ -ALUMINA AND GALLATE POLYCRYSTALLINE CERAMICS AND FABRICATION BY A VAPOR PHASE METHOD"

**DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION**

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled;

**ALKALI-METAL- $\beta$ - AND  $\beta''$ -ALUMINA AND GALLATE POLYCRYSTALLINE CERAMICS AND FABRICATION BY A VAPOR PHASE METHOD**

(check one)  is attached hereto.

\_\_\_\_\_ was filed on \_\_\_\_\_ as Application Serial No. \_\_\_\_\_  
 and was amended on \_\_\_\_\_  
 (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application, including the claims, as amended by any amendment referred to above.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Claimed

(Number)	(Country)	(Day/Mo./Yr. Filed)	Yes	No

I hereby claim the benefit under Title 35, United States Code §120 of any United States application(s) listed below and, insofar as the subject matter of each claim of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(s) which occurred between the filing date of this prior application and the national or PCT international filing date of this application.

(Application Serial No.)	(Filing Date)	(Patented, Pending, Abandoned)
(Application Serial No.)	(Filing Date)	(Patented, Pending, Abandoned)

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

**James L. Sonntag,  
Lucy L. Sonntag,**      **Registration No. 30224,  
Registration No. 34439.**

**Address all phone calls to James L. Sonntag at (435) 783-8332.**

**Address all correspondence to:**

**James L. Sonntag  
Law Offices of James L. Sonntag  
P. O. Box 21  
Heber City, Utah 84032-0021**

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first joint inventor: Anil Vasudeo Virkar

Inventor's signature: Anil S. Virkar Date: 12-29-1997

Residence: Salt Lake City, Utah, USA Citizenship: United States of America

Post Office Address: 1558 Devonshire Drive, Salt Lake City, Utah 84108, USA

Full name of second joint inventor: Jan-Fong Jue

Inventor's signature: Jan Fong Jue Date: 12-29-1997

Residence: Salt Lake City, Utah, USA Citizenship: Republic of China (Taiwan)

Post Office Address: 482 East Stonehedge Drive #4J, Salt Lake City, Utah 84107, USA

Full name of third joint inventor: Kuan-Zong Fung

Inventor's signature: Kuan-Zong Fung Date: 12-29-1997

Residence: Salt Lake City, Utah, USA Citizenship: Republic of China (Taiwan)

Post Office Address: 2611 East 6600 South, Salt Lake City, Utah 84121, USA

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**VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS**  
**UNDER 37 CFR 1.9(d) AND 1.27(c) - SMALL BUSINESS CONCERN**

I hereby declare that I am empowered to act on behalf of the concern identified below:

NAME OF CONCERN: Materials and Systems Research, Inc.  
ADDRESS OF CONCERN: 1473 Pioneer Road, Suite B, Salt Lake City, Utah 84104

I hereby declare that the small business concern identified above qualifies as a small business concern as defined in 37 CFR 1.9(d) for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on the full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention entitled "ALKALI-METAL- $\beta$ - AND  $\beta''$ -ALUMINA AND GALLATE POLYCRYSTALLINE CERAMICS AND FABRICATION BY A VAPOR PHASE METHOD" by inventors Anil Vasudeo Virkar, Jan-Fong Jue, and Kuan-Zong Fung described in the specification filed herewith.

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed below and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small

business concern under 37 CFR 1.9(d) or by any concern which could not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

[NONE]

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

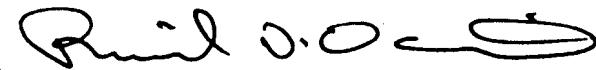
I declare further that all statements made herein on my own knowledge are true and that all statements made on information and belief are believed to be true, and that all statements made are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

NAME OF PERSON SIGNING: Anil Vasudeo Virkar

TITLE OF PERSON: Vice President

ADDRESS OF PERSON SIGNING: 1473 Pioneer Road, Suite B, Salt Lake City, Utah 84104

Signature:



Date: 12-29-1997